

PROCESS FOR FORMING SILICON OXIDE MATERIAL

ABSTRACT OF THE DISCLOSURE

A thin layer of silicon oxide is formed by cyclic introduction of a silicon-
5 containing precursor gas and an oxidizing gas separated by an intervening purge step. The
resulting thin oxide layer enables subsequent conventional CVD of oxide to produce a more
uniform deposited oxide layer over nonhomogenous surfaces, for example the silicon nitride
mask/thermal oxide liner surfaces created during fabrication of shallow trench isolation
structures.

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